

NEW RECORDS OF FISHES OF THE GENUS *CALLIONYMUS* (PISCES:
CALLIONYMIDAE) FROM THE NEW GUINEA REGION

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ABSTRACT

Based upon a small collection of dragonets, *Callionymus belcheri*, *C. schaapii*, *C. keeleyi* and *C. marleyi* are reported for the first time from the New Guinea Region. New locality records are given for other species.

Within the genus *Callionymus*, five species have been previously reported from the New Guinea Region (Munro, 1958, 1967). Those reported were *Callionymus calauropomus* Richardson (New Ireland) (for systematic changes see Johnson, 1971), *C. japonicus japonicus* Houttuyn (off Waigeu, Western New Guinea), *C. wilburni* Herre (Majalibit Inlet, Waigeu), *C. sagitta* Pallas (Bostrem Bay, Sek Harbour, Northern New Guinea) and *C. filamentosus* Cuvier (reported only from coastal waters with no specific localities given).

From a small collection of *Callionymus* spp. collected by the Department of Agriculture, Stock and Fisheries Research and Survey Station, Kanudi, Papua, I found 7 species, of which 4 are new to the New Guinea Region. In this paper the New Guinea Region comprises New Guinea, Papua, West Irian, New Britain, New Ireland, Bougainville and D'Entre-Casteaux Islands. I wish to express here my gratitude to Alan G. Hinton, L. W. Filewood and P. Kailola, Research and Survey Station, Kanudi, for allowing me to examine their collections and publish my findings. Professor J. M. Thomson, University of Queensland, and Professor Harold Heatwole, University of New England, reviewed the manuscript. This research was supported by A.R.G.C. and U.R.G. research funds to the University of Queensland. All length measurements are standard length (SL).

Genus *Callionymus*

***Callionymus belcheri* Richardson:** Three specimens, two being trawled from Kinikini Bay (64 mm female; 80 mm male) on 3 January 1960 and one (78 mm male) trawled from the Sepik area, Northern New Guinea, in November 1965. These records are the first for this species in the New Guinea Region. *C. belcheri* is known from the eastern Australian coast. For a complete description of this species, see Johnson (1971).

***Callionymus schaapii* Bleeker:** One male (58 mm) was trawled in Hall Sound, off Yule Island, Gulf of Papua, during March 1963. This is the first report of this species in the New Guinea Region. It is known from the Philippine Islands.

***Callionymus keeleyi* Fowler:** One male (37 mm) was beam trawled from Port Moresby

Harbour, Papua on 7 January 1966. This species is also known from the Philippine Islands and has not previously been reported from the New Guinea Region.

***Callionymus marleyi* Regan:** One male (60 mm) was trawled from the Sepik area in November 1965. All measurements and counts fit the description as given in Smith, 1963. The origin of the first dorsal is approximately twice as far from the caudal base as the snout tip. The fourth most anterior hook on the preopercular spine was just forming in this specimen, a subadult. *C. marleyi* is widespread in the West Indian Ocean. Specimens of *C. marleyi* have been confused with *C. sagitta* and it is possible that *C. sagitta* as reported by Munro (1958) from New Guinea might have been *C. marleyi*. This record of *C. marleyi* is the first for the New Guinea Region.

***Callionymus japonicus japonicus* Houttuyn:** Two specimens were collected; one male (106 mm) was trawled off Yule Island, Gulf of Papua on 10 November 1969 and one male (175 mm) was trawled off Bramble Cay, Gulf of Papua. *Callionymus j. japonicus* has been reported from south of New Guinea and off Waigeu, West New Guinea. These records are the first for Papuan waters. For a detailed description see Johnson, 1971.

***Callionymus filamentosus* Cuvier:** One female (73 mm) was trawled off Yule Island, Gulf of Papua on 29 November 1969. No locality records in the New Guinea Region have been published for this species, but reference was made by Munro (1967) that it occurred in coastal waters.

***Callionymus wilburni* Herre:** Four specimens were collected, two males (26 and 27 mm) and one female (24 mm) were trawled in Queen Capoca Bay, Buka Island (near Bougainville) on 28 July 1969 and one male (22 mm) was collected with rotenone in Fairfax Harbour, Port Moresby on 28 August 1969. Sexual dimorphic characteristics such as dorsal fin length and anal papilla length were evident. In males 26 and 27 mm in SL, the first dorsal spine was elongated to about mid second dorsal length, when depressed, while in the female the first dorsal spine reached only to the second dorsal origin. The background colouration in these specimens was cream to white; 6 to 7 cross bars composed of fine dots were on the back with 8 lighter bars along the sides; first dorsal black posteriorly, anterior spines clear to dusky; second dorsal clear in 22 and 24 mm specimens and with brown spots on rays in specimens 26 and 27 mm; 4 rows of black spots on rays of pelvic fin; pectorals distally clear, light brown spots on rays basally; caudal clear with a few brown to black spots on membranes between rays; anal clear in female and with a dusky margin in males.

C. wilburni has been recorded from Western New Guinea (Munro, 1967) and these records constitute a first report for Papuan waters.

In conclusion, the above data suggest a closer affinity between the callionymid fauna of the New Guinea Region and the Philippine Islands than between that of the former region and those found in Australian waters.

LITERATURE CITED

- JOHNSON, C. R., 1971. Revision of the callionymid fishes referable to the genus *Callionymus* from Australian waters. *Mem. Qd Mus.* **16**(1): 103-40.
- MUNRO, I. S. R., 1958, The fishes of the New Guinea Region. Department Agricult., Stock and Fisheries Fish. Bull. **1**: 97-369.
1967. 'The Fishes of New Guinea'. (Department of Agriculture, Stock and Fisheries: Port Moresby).
- SMITH, J. L. B., 1963. Fishes of the families Draconettidae and Callionymidae from the Red Sea and the Western Indian Ocean. *Rhodes Univ. Ichthy. Bull.* **28**: 547-564.